

Appn. Serial No. 09/871,240
Amendment Dated June 11, 2007
Reply to Office Action Mailed March 13, 2007

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REMARKS

In the Office Action dated March 13, 2007, claims 30, 31, and 38 were objected to as depending from rejected base claims, but were indicated as otherwise containing allowable subject matter; claims 2, 27, 28, 30, 31, 33, and 44-46 were rejected under 35 U.S.C. § 103 over U.S. Patent No. 5,941,313 (Arizmendi) in view of U.S. Patent No. 4,812,177 (Maehara); claims 2, 3, 27, 28, 30, 31, 33, 35, 36, and 44-49 were rejected under § 103 over U.S. Patent No. 4,151,875 (Sullaway) in view of Maehara; claim 5 was rejected under § 103 over U.S. Patent No. 4,102,395 (Robinson) in view of Maehara; claim 6 was rejected under § 103 over U.S. Patent No. 5,131,470 (Miszewski) in view of U.S. Patent No. 3,689,325 (Hayden); claim 7 was rejected under § 103 over U.S. Patent No. 6,454,001 (Thompson) in view of Hayden; claims 8 and 9 were rejected under § 103 over U.S. Patent No. 4,191,265 (Bosse-Platiere) in view of Hayden; claim 10 was rejected under § 103 over U.S. Patent No. 4,081,031 (Mohaupt) in view of Hayden; claim 29 was rejected under § 103 over Arizmendi in view of Maehara and U.S. Patent No. 4,817,716 (Taylor); and claim 29 was rejected under § 103 over Sullaway in view of Maehara and Taylor.

Applicant acknowledges the allowance of claims 11, 32, 34, 37, 39, 42, and 43.

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REJECTION OF CLAIMS 2, 27, 28, 30, 31, 33, AND 44-46
OVER ARIZMENDI IN VIEW OF MAEHARA

In the previous Reply to Office Action, mailed by Applicant on January 23, 2007, arguments were presented regarding why the above claims are non-obvious over Arizmendi in view of Maehara. Those arguments are presented by reference herein.

In the Response to Arguments section of the Office Action, the Office Action stated that impermissible hindsight was not used in formulating the obviousness rejection. 3/13/2007 Office Action at 9. The Office Action stated that the obviousness rejection took into account "only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from applicant's disclosure ..." *Id.*

It is respectfully submitted that the Examiner has in fact used impermissible hindsight that gleaned knowledge only from the disclosure of the present invention, which is prohibited. *See Graham v. John Deere Co.*, 383 U.S. 1, 36, 148 U.S.P.Q. 459 (1966). As argued by Applicant, although Arizmendi recognized that elasticity is important to avoid fracturing, Arizmendi failed to recognize the use of superplastic materials, even though superplastic materials were already known at the time of the Arizmendi reference, as evidenced by Hayden (a reference issued in 1972) and Maehara (which issued in 1989). As warned by the U.S. Supreme Court, "a patent composed of several elements is not proved obvious merely by demonstrating that each of the elements was, independently, known in the prior art." *KSR International Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 1739, 82 U.S.P.Q.2d 1385 (2007). In fact, the Supreme Court stated that it is important "to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does." *Id.* The reason for identifying a reason to combine reference teachings when making an obviousness analysis is that "invention in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combination of what, in some sense, is already known." *Id.*

Arizmendi describes a sheath body 22 that is a relatively thin-walled tubular member formed from a stainless steel, titanium, or other material having sufficient strength and elasticity to bend without fracturing. Arizmendi, 4:29-33. However, Arizmendi provided no hint that it would be desirable to use a superplastic material. The Office Action has cited to no other

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objective evidence that would have established that a person of ordinary skill in the art would have been prompted to incorporate the superplastic materials taught by Maehara into the Arizmendi apparatus. The *only* apparent reason for making the combination is based on the teachings of the present invention.

Moreover, contrary to the assertion made in the Office Action, Applicant is not arguing the references as if the rejection were applied under 35 U.S.C. § 102. See 3/13/2007 Office Action at 9. In fact, Applicant clearly argued that the Office Action has failed to establish any motivation or reason to combine the teachings of Arizmendi and Maehara. Maehara may have described various beneficial characteristics of superplastic materials; however, Maehara provides no hint whatsoever that such superplastic material could be used in the context of claim 2.

Therefore, it is respectfully submitted that the obviousness rejection of claim 2 and its dependent claims is defective.

On page 2 of the Office Action, independent claims 30 and 31 were indicated as being rejected over Arizmendi and Maehara. Yet, on page 8 of the Office Action, claims 30 and 31 were indicated as containing allowable subject matter if amended into independent form. Therefore, it is respectfully requested that the indication of claims 30 and 31 as being rejected over Arizmendi and Maehara be withdrawn in view of the indication of allowability in the Office Action.

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REJECTION OF CLAIMS 2, 3, 27, 28, 30, 31, 33, 35, 36, AND
44-49 OVER SULLAWAY IN VIEW OF MAEHARA

As with the rejection of the same claims over Arizmendi and Maehara, the Office Action has also failed to establish a *prima facie* case of obviousness with respect to these claims over Sullaway and Maehara.

The Office Action cited column 7, lines 35-46, of Sullaway as disclosing a steel element 11 (packer mandrel 11) that is engageable with a downhole seal 96. The Office Action conceded that Sullaway fails to disclose that the element is a superplastic material. 3/13/2007 Office Action at 3. However, the Office Action relied upon Maehara as disclosing a superplastic material. The Office Action failed to cite to evidence that would have established that a person of ordinary skill in the art would have recognized a reason to incorporate a superplastic material in the packer mandrel 11 of Sullaway. The combination of references by the Office Action is based on impermissible hindsight that benefits from the disclosure of the present invention. There is no hint in Sullaway of any desirability for enhanced elasticity provided by a superplastic material. The only apparent basis for substituting the steel packet mandrel 11 of Sullaway with a superplastic packet mandrel is the teaching of the present invention; however, using the present invention to piece together elements of the prior art references constitutes impermissible hindsight. Therefore, a *prima facie* case of obviousness has not been established with respect to claim 2 and its dependent claims.

Independent claim 3 and its dependent claims are also similarly allowable over Sullaway and Maehara.

In view of the indication of allowability of claims 30 and 31, it is respectfully requested that the obviousness rejections of claims 30 and 31 over Sullaway and Maehara be withdrawn.

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REJECTION OF CLAIM 5 OVER ROBINSON IN VIEW OF MAEHARA

In the rejection of claim 5 over Robinson and Maehara, the Office Action cited column 1, lines 43-53, at disclosing a well screen that is made from stainless steel. The Office Action conceded that Robinson fails to disclose that the well screen includes a superplastic material. 3/13/2007 Office Action at 5. Instead, reliance was made on Maehara as disclosing the superplastic material. Again, no objective evidence exists to provide the reason to combine Robinson and Maehara to achieve providing an element including a sand screen, where the element is formed of a superplastic material. The only apparent reason for combining Robinson and Maehara is based on impermissible hindsight, which is prohibited. Therefore, a *prima facie* case of obviousness has not been established with respect to claim 5 over Robinson and Maehara.

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REJECTION OF CLAIM 6 OVER MISZEWSKI AND HAYDEN

It is also respectfully submitted that a *prima facie* case of obviousness has not been established with respect to claim 6 over Miszewski and Hayden.

The Office Action conceded that Miszewski fails to disclose an element formed of a superplastic material. 3/13/2007 Office Action at 5. However, the Office Action cited Hayden as providing the teaching of a superplastic material. Although Miszewski teaches use of a shock absorber in a perforating gun string or a tubing string, there is no suggestion or hint by Miszewski of any desirability to incorporate a superplastic material. Therefore, the only basis for incorporating the teachings of Hayden into Miszewski appears to be impermissible hindsight that benefits from the teachings of the present invention. Since the Office Action has failed to cite to evidence that would have established that there existed a reason to combine Miszewski and Hayden, a *prima facie* case of obviousness has not been established with respect to claim 6.

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REJECTION OF CLAIM 7 OVER THOMPSON AND HAYDEN

The Office Action also conceded that Thompson fails to disclose a releasable connector mechanism including an element formed of a superplastic material. 3/13/2007 Office Action at 6. However, the Office Action cited Hayden as disclosing use of a superplastic material. Again, there existed no evidence that would have established that a person of ordinary skill in the art would have recognized any desirability to enhance the plasticity of the releasable connector mechanism disclosed by Thompson by incorporating the superplastic material of Hayden. The only basis for incorporating the teachings of Hayden into Thompson is based on impermissible hindsight. Therefore, a *prima facie* case of obviousness has also not been established with respect to claim 7.

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REJECTION OF CLAIMS 8 AND 9 OVER BOSSE-PLATIERE AND HAYDEN

No reason existed to combine the teachings of Bosse-Platiere and Hayden to achieve the claimed invention. The Office Action conceded Bosse-Platiere fails to disclose an explosive component including an element formed of a superplastic material. 3/13/2007 Office Action at 6. However, the Office Action cited Hayden as disclosing this feature. Specifically, the Office Action cited column 4, lines 32-37, of Bosse-Platiere, which refers to a downhole shaped charge that includes a steel outer case 24. There is no hint in Bosse-Platiere that it would be desirable to provide the case to have higher plasticity; therefore, the only apparent basis for incorporating the teachings of Hayden into Bosse-Platiere appears to be impermissible hindsight that benefits from the present invention.

A *prima facie* case of obviousness has therefore not been established with respect to claim 8 and its dependent claims.

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REJECTION OF CLAIM 10 OVER MOHAUPT AND HAYDEN

No reason existed to combine the teachings of Mohaupt and Hayden. Although Mohaupt teaches a weak point connector that includes a skew element, there is no hint that it would be desirable to provide enhanced plasticity by incorporating a superplastic material in the weak point connector. Therefore, the only apparent basis for incorporating the teachings of Hayden into Mohaupt appears to be impermissible hindsight. Therefore, a *prima facie* case of obviousness has not been established with respect to claim 10.

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CONCLUSION

Dependent claims are allowable for at least the same reasons as corresponding independent claims. In view of the allowability of base claims over the asserted combinations of references, it is respectfully submitted that obviousness rejections of dependent claims have also been overcome.

Allowance of all claims is respectfully requested. The Commissioner is authorized to charge any additional fees and/or credit any overpayment to Deposit Account No. 20-1504 (SHL.0102US).

Respectfully submitted,

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Dan C. Hu
Registration No. 40,025
TROP, PRUNER & HU, P.C.
1616 South Voss Road, Suite 750
Houston, TX 77057-2631
Telephone: (713) 468-8880
Facsimile: (713) 468-8883